



FEEDBACK MODEL

The purpose of a feedback loop implementation is to generate realistic congested travel times so that the gravity model accurately allocates trips to zones with more accuracy than by using free-flow travel times. The feedback loop step uses the assignment model to calculate updated congested travel times. These congested travel times are then “fed back” into the network and the highway skim travel time matrix is re-calculated. Since this would change the results of the gravity model and any subsequent model that is in the stream process, all models are re-run with this updated information. The feedback loop is repeated several times until either the output flow volumes between successive loop iterations are within a convergence criteria or the number of iterations exceeds a specified amount. Figure 16 outlines the process for the feedback model.

The Lincoln MPO model does not use the feedback model at this time for the base year validation. However, this option can be used in the future when congestion levels on the streets increases significantly.

FIGURE 16. FEEDBACK MODEL

